

BIOLOGICAL OPINION SUMMARY
Hoodoo TSI Project

Date of opinion: April 25, 1997

Action agency: U.S.F.S., Apache-Sitgreaves National Forest, Alpine Ranger District

Project: Hoodoo TSI project proposes precommercial thinning of 312 acres to improve forest health, and to facilitate development of vegetation structural stages 5CMS and 6CMS, multi-layered, mixed species stand conditions more quickly than if not treated. The project proposes to thin trees between 3 feet in height and 9 inches diameter at breast height (dbh) in order to increase diameter growth and reduce dwarf mistletoe infection while maintaining existing species composition of predominately Douglas fir and white fir. Three MSO PACs are located adjacent to or within 0.25 mile of the Hoodoo TSI project. Additional unsurveyed MSO nesting and roosting habitat is located adjacent to or within 0.25 mile of the Hoodoo TSI project.

Location: Greenlee County, Arizona.

Listed species affected: Mexican spotted owl (*Strix occidentalis lucida*), a listed threatened species. Since critical habitat for the MSO has been enjoined by New Mexico District Court (Coalition of Arizona-New Mexico Counties for Stable Economic Growth versus USFWS, No. 95-1285-M Civil (D.N.M., filed March 4, 1997)), no consultation or conferencing is required for critical habitat for this species.

Biological opinion: Nonjeopardy

Incidental take statement:

Level of take anticipated: Anticipated incidental take of four MSO pairs in a manner not in compliance with the MSO Recovery Plan (USDI 1995). With implementation of the reasonable and prudent measure and its term and condition, incidental take is likely to be minimized. Exceeding this level would require reinitiation of formal consultation.

Reasonable and prudent measures: The biological opinion presents one measure identified and agreed on by the Service and Forest Service for assisting in the reduction of incidental take: minimize harassment due to noise disturbance within 0.25 mile of MSO during the nesting season. Implementation of the measure through the term and condition is mandatory.

Terms and conditions: One term and condition is identified to implement the reasonable and prudent measure: the Forest Service will conduct MSO surveys and defer activities within 0.5 mile of MSO locations during the MSO nesting season (March 1 to August 31).

Conservation recommendations: Three conservation recommendations are provided. Implementation of this conservation recommendation are discretionary.



In Reply Refer To:

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AESO/SE
2-21-96-F-351

April 25, 1997

Mr. John Bedell
Forest Supervisor
Apache-Sitgreaves National Forest
Federal Building Box 640
Springerville, Arizona 85938

Dear Mr. Bedell:

The U.S. Fish and Wildlife Service (Service) has reviewed the project proposal for the Hoodoo TSI project located on the Alpine Ranger District. Your March 14, 1997, request for formal consultation was received on March 19, 1997. This document represents the Service's biological opinion on the effects of the proposed action on the Mexican spotted owl (*Strix occidentalis lucida*)(MSO) in accordance with section 7 of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531 et seq.) (ESA).

In the November 5, 1996, biological assessment and evaluation (BA&E), the Forest Service determined that the preferred alternative will not affect the Mexican gray wolf (*Canis lupus baileyi*), or the bald eagle (*Leucocephalus haliaetus*); and "may effect, and is not likely to adversely affect" the peregrine falcon (*Falco peregrinus*), Apache trout (*Oncorhynchus apache*) and the MSO and MSO critical habitat. At a meeting on February 11, 1997, the Service indicated they would be unable to concur with the Forest Service's determination of effect for the MSO.

The Service concurs with "may effect, but is not likely to adversely affect" determinations for the peregrine falcon and Apache trout.

Since critical habitat for the MSO has been enjoined by New Mexico District Court (Coalition of Arizona-New Mexico Counties for Stable Economic Growth versus USFWS, No. 95-1285-M Civil, files March 4, 1997), no conferencing or consultation is required for critical habitat for this species.

This biological opinion is based on information provided in the November 5, 1996, BA&E, meetings held from November 2 through 9, 1996, and from February 11 through 12, 1997, additional information requested by the Service and provided on April 17, 1997, conversations

with Jim Copeland, wildlife biologist, and Bruce Buttrey, silviculturalist, and other sources of information. Literature cited in this biological opinion does not represent a complete bibliography of literature available on the MSO or the effects of habitat modification on the species, or other subjects that may have been considered in this opinion. A complete administrative record of this consultation is on file in the Arizona Ecological Services Field Office.

It is the Service's biological opinion that the preferred alternative for the Hoodoo TSI Project is not likely to jeopardize the continued existence of the MSO.

CONSULTATION HISTORY

Informal consultation on the Hoodoo TSI Project began in November 1996. Informal consultation consisted of meetings among Marilyn Stoll and Tod Williams of the Service's Western Washington Office in Olympia, Washington; Bruce Palmer, Tom Gatz and Sam Spiller of the Service's Phoenix Office; and Jim Copeland and Bruce Buttrey of the Alpine Ranger District. During informal consultation, the Service indicated that we would not be able to concur with a Forest Service determination of "may effect, not likely to adversely affect" the MSO, given the proposed action during the MSO nesting season and with insufficient surveys to assume absence. The FS requested formal consultation for the MSO in a letter dated March 14, 1997, received in the Arizona Ecological Services Office on March 19, 1997.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

The Hoodoo TSI project area is located in the northwest corner of Greenlee County on the Alpine Ranger District. The Project area is located in T3N, R28E, Sections 1, 12, and 13; T3N, R29E, Sections 5, 6, and 7; and T3½N, R28E, Sections 24, and 36, G&SRM. The area is generally bounded by Conklin Creek to the west, Double Cienega Creek to the south and east and by Fish Creek to the north.

The Hoodoo Timber Sale Analysis Area is 8,065 acres. Between 1991 and 1993, 1,702 acres were harvested during the Hoodoo Timber Sale with partial cuts, including sanitation salvage, seed tree, group shelterwood seed, and shelterwood seed cuts. The Hoodoo TSI project was proposed for precommercial thinning during the analysis prepared for the Hoodoo Timber Sale, Decision Notice dated May 22, 1990. The Hoodoo TSI Project proposes to precommercially thin 312 acres of the 1,702 acres treated during the Hoodoo Timber Sale. Species composition of the Hoodoo TSI units proposed for treatment is a mixture of Douglas fir, white fir, ponderosa pine, and southwestern white pine. Englemann spruce also occurs in two of the units. A wide range of diameter classes remain on the sites. Excess stocking occurs in saplings to 9 inch diameter trees with scattered overstory trees remaining. Some overstocked pockets of 5 to 15 inch dbh trees

occur. Dwarf mistletoe occurs in Douglas fir, and occasionally in ponderosa pine and southwestern white pine.

The Hoodoo TSI project proposes precommercial thinning of 312 acres to improve forest health, and to facilitate development of vegetation structural stages 5 CMS and 6 CMS, multi-layered, mixed species stand conditions more quickly than if not treated. The project proposes to thin trees between 3 feet in height and 9 inches diameter at breast height (dbh) in order to increase diameter growth 2 inches in 20 years, and to decrease average stand dwarf-mistletoe ratings to less than 0.5 and stand density indices to between 20 to 35 percent after treatment, treatments are designed to maintain existing species composition on the sites, which is predominately Douglas fir and white fir.

No activities will occur within MSO PACs or suitable nesting and roosting habitat but may occur adjacent to or within 0.25 mile of MSO PACs or suitable nesting and roosting habitat during the breeding season (March 1-August 31). Thinning will be accomplished by crews of two to five people using chainsaws. Each unit may be completed in a few days to several weeks. Thinned material will be left on site. No burning, roadbuilding, or other activities are planned.

The BA&E indicates that the following conservation measures will be conducted prior to implementation of project activities within the MSO nesting season (March 1 through August 31):

1. a complete protocol survey will be prepared by a qualified wildlife biologist and conducted during the nesting season in the year of project implementation (prior to implementation) by personnel certified for MSO inventory;
2. the MSO inventory field data will be reviewed and verified by a qualified wildlife biologist;
3. if the collected data verifies the absence of MSO nest or primary roost sites within 0.5 mile of any of the proposed thinning units, then
 - A. thinning units where no MSO are not located may be released for implementation of project activities during the breeding season, and
 - B. thinning units where MSO are located will be restricted to the period outside of the breeding season based on the judgement of the qualified wildlife biologist after complete review of the inventory data.

STATUS OF THE SPECIES - Range wide

A detailed account of the taxonomy, biology, and reproductive characteristics of the MSO is found in the Final Rule listing the MSO as a threatened species (58 FR:14248) and in the Final MSO Recovery Plan (USDI 1995). The information provided in those documents is included herein by reference.

Although the MSO's entire range covers a broad area of the southwestern United States and Mexico, much remains unknown about the species' distribution and ecology. This is especially true in Mexico where much of the MSO's range has not been surveyed. The MSO currently occupies a broad geographic area but does not occur uniformly throughout its range. Instead, it occurs in disjunct localities that correspond to forested isolated mountain systems, canyons, and in some cases, steep, rocky canyon lands. The primary administrator of lands supporting MSO in the United States is the U.S. Forest Service. Most owls have been found within Forest Service Region 3 (including 11 National Forest in Arizona and New Mexico). Forest Service Regions 2 and 4 (including 2 National Forests in Colorado and 3 in Utah) support fewer owls. According to the Recovery Plan, 91% of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

Surveys have revealed that the species has an affinity for older, well-structured forest, and the species is known to inhabit a physically diverse landscape in the southwestern United States and Mexico. The range of the MSO has been divided into six Recovery Units (RUs), as discussed in the MSO Recovery Plan (USDI 1995). The Recovery Plan reports an estimate of owl sites. An owl "site" is defined as a visual sighting of at least one adult owl or a minimum of two auditory detections in the same vicinity in the same year. This information was reported for 1990-1993. The greatest known concentration of known owl sites in the United States occurs in the Upper Gila Mountains RU (55.9%), followed by the Basin and Range-East RU (16.0%), Basin and Range-West RU (13.6%), Colorado Plateau RU (8.2%), Southern Rocky Mountain-New Mexico RU (4.5%), and Southern Rocky Mountain-Colorado RU (1.8%). Owl surveys conducted from 1990 through 1993 indicate that the species persists in most locations reported prior to 1989.

A reliable estimate of the absolute numbers of MSO throughout its entire range is not available (USDI 1995) and the quality and quantity of information regarding numbers of MSO vary by source. USDI (1991) reported a total of 2,160 owls throughout the United States. Fletcher (1990) calculated that 2,074 owls existed in Arizona and New Mexico.

At the end of the 1995 field season, the Forest Service reported a total of 866 management territories (MTs) established in locations where at least a single MSO had been identified (U.S. Forest Service, *in litt.* November 9, 1995). The information provided at that time also included a summary of territories and acres of suitable habitat in each RU. Subsequently, a summary of all territory and monitoring data for the 1995 field season on Forest Service lands was provided to the Service on January 22, 1996. There were minor discrepancies in the number of MTs reported in the November and January data. For the purposes of this analysis we are using the more recent information. Table 1 displays the number of MTs and percentage of the total number of each Forest (U.S. Forest Service, *in litt.*, January 22, 1996).

Table 1. Number of MTs as reported by the Forest Service (U.S. Forest Service, *in litt.*, January 22, 1996), percent of MTs as a proportion of the MTs in Forest Service Region 3, and the percent of suitable habitat surveyed in each Forest by National Forest (Fletcher and Hollis 1994).

National Forest	No.MTs	% of MTs	Percent Suitable Habitat Surveyed
A/S	122	14.0	99
Carson	3	0.3	62
Cibola	43	5.0	41
Coconino	155	17.8	87
Coronado	108	12.4	49
Gila	197	22.7	50
Kaibab	6	0.7	96
Lincoln	126	14.5	90
Prescott	10	1.2	42
Santa Fe	33	3.8	44
Tonto	66	7.6	55
TOTAL	869	100	

The Forest Service has converted some MTs into PACs following the recommendations of the Draft MSO Recovery Plan released in March 1995. The completion of these conversions has typically been driven by project-level consultations with the Service and varies by National Forest.

The Hoodoo TSI project area is located within the Upper Gila Mountains RU as defined by the MSO Recovery Plan (USDI 1995). This RU is a relatively narrow band bounded on the north by the Colorado Plateau RU and to the south by the Basin and Range West RU. The southern boundary of this RU includes the drainages below the Mogollon Rim in central and eastern Arizona. The eastern boundary extends to the Black, Mimbres, San Mateo, and Magdalena Mountain ranges of New Mexico. The northern and western boundaries extend to the San Francisco Peaks and Bill Williams Mountain north and east of Flagstaff, Arizona. This is a topographically complex area consisting of steep foothills and high plateaus dissected by deep forested drainages. This RU can be considered a "transition zone," because it is an interface between two major biotic regions: the Colorado Plateau and Basin and Range Provinces (Wilson 1969).

Habitat within this RU are administered by the Kaibab, Coconino, Apache-Sitgreaves, Tonto, Cibola, and Gila National Forests. The north half of the Fort Apache and northeast corner of the San Carlos Indian Reservations are located in the center of this Recovery Unit and contain an important habitat link between owl subpopulations at the western and eastern ends of the RU and the subpopulations directly south within the Basin and Range West RU.

This RU consists of deep forested drainages on the Mogollon Plateau. Vegetation generally consists of pinyon/juniper woodland, ponderosa pine/mixed conifer forest, some spruce/fir forest, and deciduous riparian forest in the lower elevation canyon habitat. Climate is characterized by cold winters and over half the precipitation falls during the growing season. Much of the mature stand component containing accessible timber on the gentle slopes surrounding the canyons has been partially or completely harvested. Most of the forest habitat on steeper ground that may serve as nesting and roosting habitat is in suitable condition.

MSO are widely distributed and use a variety of habitats within this RU. Owls most commonly nest and roost in mixed-conifer forests dominated by Douglas fir and/or white fir and canyons with varying degrees of forest cover (Ganey and Balda 1989; USDI 1995). Owls also nest and roost in ponderosa pine-Gambel oak forest, where they are typically found in stands containing well-developed understories of Gambel oak (USDI 1995).

This RU contains the largest known concentration of MSO with approximately 55% of known MSO territories (USDI 1995). This RU is located near the center of the MSO's range within the United States and is contiguous to four of the other five RUs within the United States. Because of its central location and its large and relatively continuous spotted owl population, the MSO Recovery Team believes that the population in this RU could be uniquely important to the overall stability and persistence of the MSO population in the United States. Specifically, this population could serve as the source population, providing immigrants to smaller, more isolated populations in other RUs. Although the Recovery Team has no data on dispersal patterns or movements between RUs, the Recovery Team believes that this population should be maintained at current levels and with at least the current level of connectivity within the RU (USDI 1995). Significant discontinuities that develop in the MSO's distribution within this RU, and the loss of habitat to support the local sub-populations, may jeopardize the recovery of the species.

ENVIRONMENTAL BASELINE

Under section 7(a)(2) of the Act, when considering the effects of the action on Federally listed species, the Service is required to take into consideration the environmental baseline. Regulations implementing the Act (50 CFR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects which have undergone section 7 consultation, and the impacts of State and private actions which are contemporaneous with the consultation in progress. On the Apache-Sitgreaves National

Forest, past and present Federal, State, private, and other human activities that affect this RU include numerous past timber sales, fuelwood gathering activities, cattle grazing, development of recreation sites, and road construction and maintenance activities.

The Forest Service has formally consulted on 168 projects in Arizona and New Mexico since August 1993. These projects have resulted in the anticipated incidental take of 44 owls due to habitat loss. In addition, the Bureau of Indian Affairs has consulted on one timber sale on the Navajo Reservation which resulted in an anticipated take of four MSO, and a highway reconstruction which resulted in the anticipated incidental take of two MSO. The Federal Highway Administration has consulted on one highway project that resulted in an undetermined amount of incidental take.

EFFECTS OF THE ACTION

The proposed Hoodoo TSI project area was inventoried for MSO in 1989 by the standards outlined in Interim Directive No. 1, FSM 2670. The area was again inventoried in 1993 by the standards of Interim Directive No. 2, FSM 2670. Other non-protocol surveys were conducted in the area during the period 1984-1988 by the Arizona Game and Fish Department (AGFD), Joe Ganey, and Bob Vahle (Alpine District WL Biologist, and now AGFD biologist).

As a result of the surveys, five 2000-acre management territories (MT) were established within 0.25 mile or adjacent to the Hoodoo TSI Project area. Subsequently, five 600-acre PACs (PACs numbered 010103 (PAC 3), 010104 (PAC 4), 010105 (PAC 5), 010135 (PAC 35), and 010136 (PAC 36)) were delineated based upon expansion of the 450-acre management territory (MT) core areas, as recommended in the MSO Recovery Plan (USDI 1995). Acreage added to the MT core areas was the best suitable habitat available based on FS review of stand exam data, personal field reconnaissance of the area, and review of aerial photographs. The project area is central to the largest known concentration of MSO on the Apache-Sitgreaves National Forests.

Recent review of both AGFD and FS survey forms indicated no documentation of MSO responses upon which PAC 3 and PAC 5 were established as a MTs. Informal FS monitoring (two visits during the nesting season) of PAC 3 in 1993 resulted in no MSO responses. Informal FS monitoring of PAC 5 in 1993, 1994 and 1995 resulted in no responses. PAC 3 and PAC 5 were not monitored in 1996. PAC 4 was established as a MT based on the 1984-1988 surveys. Review of survey and monitoring records for PAC 4 indicate that for seven of the nine nesting seasons between 1984 and 1992, pair occupancy was documented, and that for three of those years young were observed. Informal monitoring of PAC 4 in 1993 resulted in no MSO responses. PAC 4 was not monitored from 1994 through 1996. PAC 35 and PAC 36 were established as MTs based upon single MSO responses in 1988. Formal FS monitoring (six visits during the nesting season) in 1994 and 1995 indicated absence for both PAC 35 and PAC 36. PAC 35 and PAC 36 and all areas between were monitored (four visits during the nesting season) in 1996 for the Draw Timber Sale. PAC 35 and PAC 36 are just beyond 0.25 mile from any Hoodoo TSI unit boundary.

The Hoodoo TSI units proposed for treatment are not currently suitable MSO nesting or roosting habitat. Habitat suitable for MSO nesting and roosting occurs adjacent to and within 0.25 miles of Hoodoo TSI units. Hoodoo TSI units do provide habitat conditions for MSO foraging. All Hoodoo TSI units will retain habitat components of MSO foraging habitat after implementation of the proposed project.

Silvicultural prescriptions within the capable habitat (the stands do not meet the target/threshold conditions for mixed-conifer restricted habitat) are designed to develop vegetation structural stages VSS 5CMS and VSS 6CMS mixed species stand conditions more quickly than with no treatment.

Implementation guides plan for thinning of trees between 3 feet in height and 9 inches in diameter. No trees over 9 inches in diameter are proposed for removal regardless of dwarf-mistletoe infection. Some trees greater than 9 inches dbh with dwarf-mistletoe occur. Their retention, along with retention of all other trees greater than 9 inches dbh, will maintain existing canopy layers in the stand and provide nesting and roosting substratum, and provide for future snag recruitment. Future mortality is expected to occur in understory trees in proximity to infected overstory trees. This will create future openings in the stands to allow regeneration of a new age class and help maintain existing species composition on the site. This will help with further development of a multi-storied unevenaged stand condition. Implementation guides for thinning indicate that residual tree spacing will be variable and dependent upon tree characteristics. This will result in a range of diameter classes remaining on the site. Clumps of all size classes will remain. This will assist in development of unevenaged, multi-storied stand structures.

The following paragraphs were utilized in the BA&E for the Tenney TSI project accomplished in 1994. The harvest prescriptions for the Tenney timber sale were similar and the after-harvest stand conditions were similar to those currently on the Hoodoo area. Based on the similarity of the areas the trends displayed for Tenney are expected to be similar for the Hoodoo area.

The Forest Vegetation Simulator was used to project vegetative conditions for 150 years after proposed thinning treatments. A projection was completed based upon an average stand condition for the proposed treatment units, and the following trends are expected to occur within the units proposed for thinning. Analysis indicates a slight reduction in the basal area, and hence canopy cover of small diameter classes (0-9" dbh, primarily 0-5" dbh) immediately after the proposed thinning in 1994. This will cause a slight reduction in roosting habitat within 0-9" diameter trees on the analysis area. Reduction of canopy cover in the small diameter classes will also result in an increase in forage production and improve habitat conditions for prey species of Mexican Spotted Owl.

Residual quadratic mean diameter increases immediately after thinning in 1994. This trend can be expected when thinning from below and concentrating removal in the smaller diameter classes as proposed. This will speed movement of capable habitat to suitable habitat conditions. In stands proposed for treatment, simulation was done

to reflect pre-commercial thinning in 1994, and no further treatments. Basal area is projected to increase, and canopy cover above 60% is projected to occur in the year 2004, with or without the proposed thinning. A significant difference in residual quadratic mean diameter occurs over the 150 year projection between the proposed action and no treatment. With the proposed thinning in 1994, residual quadratic mean diameter is projected to be 19.3" in 2124, and only projected to be 11.3" in 2124 without treatment. Larger tree size will be attained more quickly with the proposed thinning, and hence capable habitat will become suitable habitat more quickly with the proposed thinning.

In summary, potential effects on MSO as a result of implementation of the Hoodoo TSI project are from harassment due to noise disturbance only, and not from harm due to habitat loss. In the long term, it is likely the Hoodoo TSI project will improve habitat conditions for MSO. PAC 35 and PAC 36 are just beyond 0.25 mile from any Hoodoo TSI unit boundary and are not likely to be disturbed. PAC 3, PAC 4, and PAC 5 as well as unsurveyed suitable habitat capable of supporting one MSO pair could be disturbed by implementation of the Hoodoo TSI project. The Service requires two consecutive years of protocol MSO surveys in order to assume absence for the purposed of section 7 consultations. Because no MSO surveys were conducted in 1996, it is not possible for the Forest Service to complete adequate surveys to assume MSO absence. Therefore, the Service must assess the worst case scenario and assume that MSO habitat is occupied by MSO pairs, and that MSO pairs would be disturbed by project activities.

If MSO are nesting or roosting in close proximity to areas with relatively high levels of human activities, the Service anticipates that some percentage of MSO, located in suitable habitat within 0.25 mile of proposed projects, may be subject to harassment as a result of noise associated with these activities. This incidental take can be quantified in terms of cumulative probability that: (a) suitable, unsurveyed habitat is actually occupied by MSO; (b) if occupied, nesting and roosting birds will in fact be disturbed; and (c) if disturbed, reproductive output will be negatively affected. This disturbance may result in incidental take in the form of harassment due to the disruption of courtship behavior, premature fledging or nest evacuation, or nest abandonment.

Although potential MSO nesting habitat may be affected by the Hoodoo TSI project, disturbance is considered to be less severe of an impact to the species as opposed to the loss of the same acreage of suitable nesting or roosting habitat. In addition, the Service anticipates that less than the maximum amount of nesting and roosting habitat will be adversely affected because: (a) not all acres within 0.25 mile will be suitable spotted owl nesting and roosting habitat; (b) not all suitable habitat will be occupied by MSO; (c) not all MSO will be disturbed; and (d) noise disturbance may not extend to 0.25 miles for all Hoodoo TSI activities.

The Service believes that potential disturbance will be minimized because of: (a) MSO monitoring during the year of project implementation and avoidance of implementing project activities in areas where MSO are detected; (b) the short duration of project activities; (c) the lower level of noise intensity associated with equipment used for this project; and (d) the potential for vegetation and topography to screen noise associated with project implementation.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, local or private actions that are reasonably certain to occur in the action area considered in the foreseeable future. Future Federal actions are subject to the consultation requirements established under sections 7, and, therefore, are not considered cumulative in the proposed action. In past Biological Opinions, it has been stated that, "Because of the predominant occurrences of the MSO on Federal lands, and because of the role of the respective Federal agencies in administering the habitat of the MSO, actions to be implemented in the future by non-Federal entities on non-Federal lands are considered of minor impact." However, there has been a recent increase of harvest activities on non-Federal lands within the range of the MSO. In addition, future actions within or adjacent to the Forest Service lands that are reasonably expected to occur include urban development, road building, land clearing, logging, fuelwood gathering, potential oil and gas leasing, and other associated actions. These activities reduce the quality and quantity of MSO nesting, roosting, and foraging habitat, cause disturbance to breeding MSO and would contribute as cumulative effects to the proposed action.

CONCLUSION

After reviewing the current status of the MSO, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the Hoodoo TSI Project, as proposed, is not likely to jeopardize the continued existence of the MSO.

INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of ESA, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or the applicant. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The Forest Service has a continuing responsibility to regulate the activity covered by this incidental take statement. If the Forest Service (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

For the purposes of consideration of incidental take of MSO by the proposed action under consultation, incidental take will be in the form of harassment due to disturbance during the nesting season which may effect the ability of MSO to breed, feed or shelter. MSO may fail to breed, fail to successfully rear young, raise less fit young, or desert the area because of disturbance.

In past Biological Opinions, the management territory was used to quantify incidental take thresholds for the MSO (see Biological Opinions provided by the Service to the Forest Service from August 23, 1993 to date). The current section 7 consultation policy provides for incidental take if an activity compromises the integrity of a PAC. Actions outside PACs will generally not be considered incidental take, except in cases when areas that may support owls have not been adequately surveyed.

Using available information as presented within this document, the Service has identified conditions of possible incidental take for the MSO associated with PAC 3, PAC 4, and PAC 5 as well as unsurveyed nesting and roosting MSO habitat. Based on the best available information concerning the MSO, habitat needs of this species, the project description, and information furnished by the Forest Service, incidental take is considered likely for the MSO as a result of the following:

1. Disturbance will occur adjacent to or within 0.25 mile of PAC 3, PAC 4, and PAC 5 in a manner not in compliance with the intent or the letter of the recommendations of the MSO Recovery Plan (USDI 1995).
2. Disturbance will occur within 0.25 mile of habitat suitable to support one pair of MSO which is not included in any designated PAC in a manner not in compliance with the intent or the letter of the recommendations of the MSO Recovery Plan (USDI 1995).

AMOUNT OR EXTENT OF TAKE

The Service anticipates that the Hoodoo TSI project proposed action may result in the incidental take of up to four MSO pairs connected with three PACs as well as unsurveyed habitat outside of

designated PACs which may be capable of supporting one pair of MSO. This incidental take will be in the form of harassment due to disturbance during the nesting season within 0.25 mile of unsurveyed nesting and roosting habitat inside and outside of designated PACs. The Service believes that the conservation measure included in the proposed project description to monitor and defer activities within 0.5 mile of MSO detected during the nesting season will minimize the extent of incidental take.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the MSO.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measure which was identified and agreed on during meeting between the Service and the Forest Service is necessary and appropriate to minimize take. The Forest Service has included this measure as part of the Hoodoo TSI project description.

Minimize harassment of MSO during the nesting season.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of ESA, the Forest Service must comply with the following term and condition, which implements the reasonable and prudent measure described above. This term and condition is nondiscretionary.

The Forest Service will prepare a complete protocol survey by a qualified wildlife biologist. The survey will be conducted during the nesting season in the year of project implementation (prior to implementation) by personnel certified for MSO inventory. The MSO inventory field data will be reviewed and verified by a qualified wildlife biologist. If the collected data verifies the absence of MSO nest or primary roost sites within 0.5 mile of any of the proposed thinning units, then (a) thinning units where no MSO are located may be released for implementation of project activities during the breeding season, and (b) thinning units where MSO are located will be restricted to the period outside of the breeding season based on the judgement of the qualified wildlife biologist after complete review of the inventory data.

The reasonable and prudent measure, with its implementing term and condition, are designed to minimize incidental take that might otherwise result from the proposed action. The Service and Forest Service believe that implementation of this term and condition will reduce the potential for

incidental take of MSO associated with three PACs and unsurveyed suitable nesting and roosting habitat capable of supporting one MSO pair. If, during the course of the action, this level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

Notice: While the incidental take statement provided in this consultation satisfies the requirements of the Endangered Species Act, as amended, it does not constitute an exemption from the prohibitions of take of listed migratory birds under the more restrictive provisions of the Migratory Bird Treaty Act.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. Informally monitor ambient, as well as project, noise levels. Implement project activities to minimize ambient noise levels within 0.25 miles of suitable MSO nesting and roosting habitat.
2. Implement Hoodoo TSI project outside of the MSO nesting season, or complete 2 year surveys to confirm absence assumed.
3. Coordinate results of MSO surveys with the Service at the end of the 1997 nesting season.

REINITIATION - CLOSING STATEMENT


This concludes formal consultation on the action outlined in the draft biological evaluation and draft environmental assessment. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Mr. John Bedell

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Thank you for your consideration of threatened and endangered species. For further information please contact Bruce Palmer. Please refer to the consultation number 2-21-96-F-063, in future correspondence concerning this project.

Sincerely,


for Sam F. Spiller
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (GM:AZ)(AES)
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM
District Ranger, Alpine Ranger District, Flagstaff, AZ

Director, Arizona Game and Fish Department, Phoenix, AZ

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